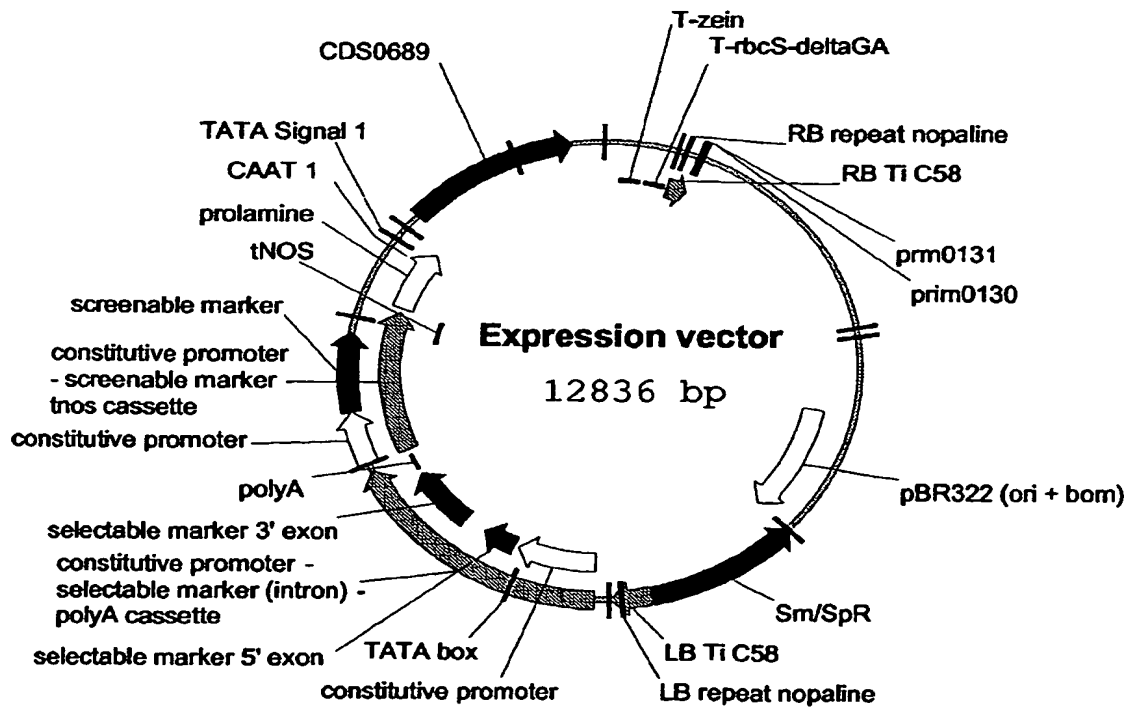
**FIGURE 1****FIGURE 2**

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		Motif 1	
		1	40
CDS0689	(1)	MSVLOYPEGIDPADVOGNNAAFNGCSEDLSLTKR	
CDS0689 At	(1)	MTSIEATETLNAPPYLOTHNNAAFDGGDSQITSAIEA	
CDS0689 Medicago trunculata	(1)	MNNTNNNNILLHSTOVVNNNAAFNGEDFAMNSSSDS	
CDS0689 Os	(1)	MEEDPLPLVHVNNNAAFDSSSCSRSAWHPO	
CDS0689 Ta variant	(1)	MEEDPLPLVHVNTNAAFDSSSSSSAWHAHA	
CDS0689 So	(1)	MEEDPLPLVHVNNNAAFDHSSSSAWHAHSP	
CDS0689 Zm variantrev	(1)	MEEDPLPLVHVNNNAACDNAASSSVCHAH	
CDS0689 So variant	(1)	MEEDPLPLVHVNNNAFPDHASYSAWHAHSP	
CDS0689 Bn est1	(1)	MTSTEHTETLNAPLOTHNNAAFDGGDSNLISATIEA	
CDS0689 Eschscholzia californica	(1)	MLEISETLNPDLQTHNNAAFDSSGSDNHTTAIK	
CDS0689 Ga est1	(1)	MSVLOYPEDFNVPPELOVNNNAAFNGCSEDNTAKD	
CDS0689 Pt	(1)	MSSVLOYPEVVDAPVOGNNAAFNGSEGLNLIK	
CDS0689 Plumbao zeylanica	(1)	MNEVLHLOEAARTDSSTDHQTNNNAAFDSCSEDSPPVID	
CDS0689 Citrus sinensis	(1)	MSVLOYPEDTLNGQLOTHNNAAFNGCSEDSTAMKG	
Consensus	(1)	I E IPEVQIWNNAAFD GDS S AI	
		Motif 2	
		41	80
CDS0689	(37)	SWSPKPLSVRPSDSFESDLSSKENTLFFENSSVNLS	
CDS0689 At	(38)	SSWSHLN-----ESFDSICS--KQPFISVSSSLQSS	
CDS0689 Medicago trunculata	(38)	-----IKNLNEAFN-----	
CDS0689 Os	(32)	SP-----AVAAVRKGGKTHREVEVD-----	
CDS0689 Ta variant	(33)	-----TPVRRGEKTHREAEVN-----	
CDS0689 So	(32)	-----VPASRRRAGGDKTHREDDPD-----	
CDS0689 Zm variantrev	(32)	SPAPASAREGEGDKTLREPDV-----	
CDS0689 So variant	(32)	ARASAGHEAGGDKTHREDDPD-----	
CDS0689 Bn est1	(37)	SWSNLNASFDSICS--KQFISVSSSLKSS	
CDS0689 Eschscholzia californica	(35)	ASSSPLKPIVLNQSEPSILDSIYTHQTSCCISPVRTK	
CDS0689 Ga est1	(37)	SWCNFNS-----GSVNQSLESDDGSKQSELWIKSPVSEK	
CDS0689 Pt	(38)	SWNNQSLESDDGSKQLSEVCEQSSPVFV	
CDS0689 Plumbao zeylanica	(41)	--F-----SAPNLSQSLLSDSSIENLSLSLAEMPHPAK	
CDS0689 Citrus sinensis	(37)	SWANLKS-----VYMNQSLESDDGSKQLSERLNKSPSTSL	
Consensus	(41)	S ESDG KEN P S	
		Motif 3: coiled coil	
		81	120
CDS0689	(75)	SPLPIKPLNPNGALENSRLKPNKPNKQSLDEMAARKSGK	
CDS0689 At	(69)	VSITEAPS-----AKSKTVTKTSAADRSKK-	
CDS0689 Medicago trunculata	(49)	IVPS-----SNK-	
CDS0689 Os	(53)	VAAG-----	
CDS0689 Ta variant	(50)	-----	
CDS0689 So	(54)	-----	
CDS0689 Zm variantrev	(55)	-----	
CDS0689 So variant	(54)	-----	
CDS0689 Bn est1	(67)	VSFSTDDP-----IRCGKVK-----EKPH	
CDS0689 Eschscholzia californica	(75)	SPLPIKPLHPNG-----	
CDS0689 Ga est1	(72)	STASVVKP-----LSSKNVTGNTREPFSAKMKSGVCKE	
CDS0689 Pt	(66)	NSSKPAKPLQ-----	
CDS0689 Plumbao zeylanica	(73)	SPMQK-----	
CDS0689 Citrus sinensis	(72)	KSCVPNKPLQVN-----SSVKNSQMKQLK--SVSK	
Consensus	(81)		
		Motif 3: coiled coil	
		121	160
CDS0689	(115)	GNDFRDEKKIDEEIEEIQMEISRLSSRLALRDEKAEKTV	
CDS0689 At	(94)	RDIDAEIEEVEKEIGRLSKLLESRLDEKAEQTA	
CDS0689 Medicago trunculata	(56)	RTIDDEIAEIESEIKRLSKLLELLRVEKAERKI	
CDS0689 Os	(57)	YDVEAFIGHIEAEILRLSSRLHHLRVSKQPEPN	
CDS0689 Ta variant	(50)	DADAEIARIEAEILRLSSRLHHLRVSKGHDAK	
CDS0689 So	(54)	DVEAEIGHIEAEILRLXSLRLHHLRTSKQSEPS	
CDS0689 Zm variantrev	(55)	DEEMRHIEAEILRLSLRLHHLRTSQQLQPP	
CDS0689 So variant	(54)	DVEAEIGHIEAEILRLSSRLHHLRTSKQSEPP	
CDS0689 Bn est1	(86)	KTGKVRHGDIDAEIEEVEKENRLSIRLESRLDEKAEQIA	
CDS0689 Eschscholzia californica	(87)	-----	
CDS0689 Ga est1	(105)	EEKRDEKKIDMEIEEIEKEVARLSKLESRLDEKPNIMQ	
CDS0689 Pt	(76)	-----	
CDS0689 Plumbao zeylanica	(78)	-----	
CDS0689 Citrus sinensis	(100)	EEETRDERKIDIEIEEIEKEISRLSSRLALRDEKIDIKT	
Consensus	(121)	ID EI IE EI RLSSRL LRL K	

FIGURE 3

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		401		440
CDS0689	(339)	IQSSVVRKRSLPENDKDESKRNDKRSLSVGKTRVSTES		
CDS0689 At	(294)	TGEKDVRKRSLPEDDEEKENHKRSEK-----RASDES		
CDS0689 Medicago trunculata	(284)	GGD--ARKRSFSEN-----N		
CDS0689 Os	(297)	AAAAATAKRMAGSSKMEVIPSRYSTTPGSLSSGAQERR		
CDS0689 Hv contig 123	(111)	ISTASTCRPAGSSKVVVPSRYSLMPGSLG-AATQDGR		
CDS0689 Ta contig	(1)	-----GRYSMPGSLGAASQERR		
CDS0689 Zm partial	(87)	TSNVATTKRPAAGSSKVVVPSRYSLPPGSLIAVTOGNRC		
CDS0689 Sacc sp 3'	(84)	TSNAATAKRPAGSSKVVVPSRYSTTPGSLIAVSQDKRS		
CDS0689 Pinus taeda 3'	(1)	-----		
Consensus	(401)	KR R RYSL PGA LG		
		441		480
CDS0689	(379)	KNL---GTSRVKKRWEIPSEIVVHGNTSEKSPLSIIVK		
CDS0689 At	(327)	K-----SEGRVKKRWEIPSEVDLYSSGEN--GDESPIVK		
CDS0689 Medicago trunculata	(297)	KGL---GSEIRAKKRWEIPIEEVDVSG-----FVM--		
CDS0689 Os	(337)	KKQSLPGSSGDANQHEEIRAKVIEPSN--DPLSPOTISKV		
CDS0689 Hv contig 123	(150)	KKESLPGSTGSGTGOKEEIKAVPTPEVD--DDLSPESLDKV		
CDS0689 Ta contig	(21)	KESLPGSTGGAGQKEEIKAMPTPEVD--DDLSPESLDKV		
CDS0689 Zm partial	(127)	KQS---LPGSATETFNLTPEPNDE--LSPETIAKV		
CDS0689 Sacc sp 3'	(124)	KQS-LPGPASAASQREEIRAKLTPEPSK--DELSPETIAKV		
CDS0689 Pinus taeda 3'	(1)	-----XEARIYFGTGNSAIMAGGTTKPTETIERH		
Consensus	(441)	K GS R EI A E LSPESL KV		
Motif 4				
		481		520
CDS0689	(416)	PDLPRRIARCVDNLEDSGPAFMIELIGKSFSSDE		
CDS0689 At	(359)	--E--KRTLRVGGSPEDSGAAKVAELQAK-----		
CDS0689 Medicago trunculata	(324)	---LPEKSTMRFVDESPHSGAVKRVAEVLNGKRSYFCDED		
CDS0689 Os	(375)	AEMLPKRTMPPPDSPRDSGCAKRVADLVGKRSFFTAAG		
CDS0689 Hv contig 123	(188)	AELLPRRTMFRPNETPPDSGCAYRAADLVGKRSFFAAAG		
CDS0689 Ta contig	(59)	AELLPRRTMPPPDSPRDSGCAYRAADLVGKRSFFAAAG		
CDS0689 Zm partial	(158)	AELLPRRTMPPPSDESPHSGCAKRVADLVGKRSFFTAAG		
CDS0689 Sacc sp 3'	(161)	AELLPRRTMPPASDESPHSGCAKRVADLVGKRSFFTAAG		
CDS0689 Pinus taeda 3'	(29)	KMKPEKTVRETTESPRDSGCI--EIDRIGKRSFFAPDG		
Consensus	(481)	AELLPRRTMP DESPRDSGCAKRVADLVGKRSFF AAA		
		521		560
CDS0689	(456)	-----DKEPPVCQVLSFAFEDAEED-----		
CDS0689 At	(389)	-----DRNFTFCQILKFEE-----		
CDS0689 Medicago trunculata	(361)	EEERVVVEEGGSVCQVLNFAEDDDDDDDYGEQG-----		
CDS0689 Os	(415)	-----EDGRALDVEAPEAVAEA-----		
CDS0689 Hv contig 123	(228)	AGD---GSAISSYQARVLEAEAPPEAAAAAGALSDEAAAAAG		
CDS0689 Ta contig	(99)	AGD---CSAISSYQARVLEAEAPPEAAAAAGALSDEAAAAAG		
CDS0689 Zm partial	(198)	DDG---NLVTPYQARVVELESPEAAAAEAEAE-----		
CDS0689 Sacc sp 3'	(201)	EDG---NFVTPYQAPVGEL-----		
CDS0689 Pinus taeda 3'	(69)	ITST--PSIDXXDAGEPLRRESVHEIXHAXX-----		
Consensus	(521)	ARVLE EA E		
		561		592
CDS0689	(476)	-----		
CDS0689 At	(403)	-----		
CDS0689 Medicago trunculata	(395)	-----		
CDS0689 Os	(432)	-----		
CDS0689 Hv contig 123	(265)	ALSDEAAAAAAAEALSDEAAAAEALSDEAAAA		
CDS0689 Ta contig	(136)	GEALGDEAAA-----		
CDS0689 Zm partial	(226)	-----		
CDS0689 Sacc sp 3'	(217)	-----		
CDS0689 Pinus taeda 3'	(99)	-----		
Consensus	(561)			

FIGURE 3 (continued)

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**SEQ ID NO 1: *Nicotiana tabacum* seedy1 coding sequence (CDS0689)**

atgagtgtgttacaatacccagaagggattgaccagcagatgttcagatatggaacaatgc  
agcatttgataatggagattctgaagatttgtcttcgctgaaacgttcttgggtctcctctga  
aacccttttcggttaggccatcagattcctttgaatctgatttgtcaagtaaggaaaatcaa  
actcctttatttgagaattcatctgttaatctctcatctccgttacccataaagccacttaa  
ccctaattggggctctggaaaattcaagactcaagccgaacaagcccaattccaaacagagtc  
ttgatgagatggcggctagaaagagcggaaagggaaatgatttccgtgatgagaagaaaata  
gacgaggaaattgaagaaattcagatggagatttagtaggttgagttcaagatttagaggcttt  
gagaattgaaaaggctgagaaaactgttgctaagactgttgaaaagcgaggaagggttggtg  
cagcaaagtttatggagccaaaacaaagtgttattaagattgaagagcgtatatcaatgagt  
gcaagaacaaaggtggagcagagaaggggtcttagtttaggaccatctgagatttttactgg  
aacgcggcgagggttgagtatggggccatcagatattctagcagggacaacaaaggcac  
ggcaattgggaaagcaagagatgattattactcctattcagccaatacaaaacaggcgaaag  
tcgtgtttttggaagcttcaagagattgaagaagaggggaaaaagttcaagccttagtcctaa  
atcaagaaaaactgctgcaagaacaatgggtacaacaaggcaggcagttactacaattgcat  
caaagaagaatttgaaaaagatgatggacttttgagttcagttcagccaaagaagttgttt  
aaagatctcgaaaagtctgctgctgctaataagaagccccagaggccggggagggttggtggc  
tagtaggtataatcagagtacaattcagtcatcagtagtgagaaagaggtctttacctgaaa  
atgataaggatgagagtaagagaaatgataagaaacgggtcgttatctgtagggaaaacgcgt  
gtgtctcaaactgagagcaagaatttggtactgaaagtaggggtgaaaaagagatgggaaat  
tcctagttagattgtagttcatggaaacacagagagtgagaaatctccactaagcattattg  
tgaagcctgatttgcttccgcgaattaggattgctcgggtgtgtgaatgagactcttagggat  
tctggacctgctaaaagaatgatagagttgataggcaagaaatcgtttttcagtagtgatga  
agataaggagccacctgtctgtcaagttttaagttttgcagaggaagatgctgaagaggaat  
aa

**SEQ ID NO 2: *Nicotiana tabacum* seedy1 protein (CDS0689)**

MSVLQYPEGIDPADVQIWNNAAFDNGDSEDLSSLKRSWSPLKPLSVRPSDSFESDLSSKENQ  
TPLFENSSVNLSSPLPIKPLNPNGALENSRLKPNKPNŠKQSLDEMAARKSGKGNDFRDEKKI  
DEEIEEIQMEISRLLSRLEALRIEKAECTVAKTVEKRGRVVAAKFMEPKQSVIKIEERISMS  
ARTKVEQRRGLSLGPSEIFTGTRRRGLSMGPSDILAGTTKARQLGKQEMIITPIQPIQNRK  
SCFWKLQEIIEEGKSSSLSPKSRKTAARTMVTTTRQAVTTIASKKNLKKDDGLLSSVQPKKLF  
KDLEKSAAANKKPQRPGRVVASRYNQSTIQSSVVRKRSPLPENDKDESKRNDKKRSLSVGKTR  
VSQTESKNLGTESRVKKRWEIPSEIVVHGNTSEKSPLSIIVKPDLLPRIARIARCVNETLRD  
SGPAKRMIELIGKKSFFSSDEDKEPPVCQVLSFAEEDAEEE

**FIGURE 4**

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SEQ ID NO 3: *Oryza sativa* seedy1 coding sequence

[illegible]

**SEQ ID NO 4: *Oryza sativa* seedy1 protein**

MEEDPLIPLVHVWNNAAFDDSSCSRSAWLPQSPAVAAVRKGDKENHRPEVVDVAAGYDVEAE  
IGHIEAEILRLSSRLHHLRVSKQPEPNRDDAPMGEMVAKVRPRPRGLSLGPLDVISIVNREK  
HPLRTKQPPATRGRGLSLGPMEIAAANPRVPAAAQHQQQQRAGTARILKPIKEPPVQRRRGV  
SLGPLEIHHGVGSKAPAAARAKPFTTKLNAIREETRPSKQFAVPAKPWPSSNTRQTLDSROG  
TAASRAKARSPSPRRRQSNKGATDTRGGNKVVDELKPKGASSSQSGSAAAAATAKRMAGSS  
KMRVIPSRYSLTPGASLGSSGAQERRRKQSLPGSSGDANQNEEIRAKVIEPSNDPLSPQTIS  
KVAEMLPKIRTMPPPDESPRDSGC AKRVAELVGKRSFFTAAEDGRALDVEAPEAVAEA

**FIGURE 4 (continued)**

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**SEQ ID NO 5: *Medicago trunculata* seedy1 encoding sequence**

aaaaacgttaaggactaaaaatataataaaaatttaagtagggattcataatggaagcacccc  
 tatttacagggatcttaaatataattaaccctaataatattatgacagaaacccctttgaaatc  
 acatcggagcgtgtatgagtagccgtttcacatccaacggccagtaagagcgttaactttatt  
 tcttccctcttcaatctccaacgggtcacataatctcttccaaatacaataattccctcttt  
 caacctcactcttcatcttctcaacccaaaccccaaaaaactaatcagattcttcttaaatct  
 tgaaacctttctcccaaaagcacttaaaataaaaaagcacttaaccatgaataacacaaacaa  
 caacaacattcttcttcttattccacacaggttcaagtgtggaacaacgcagcattcgatggtg  
 aagatttcgccatgaattcatcttctgattccatcaaagagaatctaaacccatccgcattc  
 aacattgttcttcttcaacaaaagaactattgatgatgaaattgcggaattgaaagtga  
 aattaagcgattaacttcgaagctggaattgcttcgtgttgaaaaagctgaaagaaaaatcg  
 ctcttgaaaagcgtgttagtggaattggtactggaagaatagtagcagcgaagtttatggaa  
 ccgaagaaaaacggttacaccgaaacgaaacgggtgtcgttttcaaggaggagacaccgaaacg  
 aaacgggtgtcgtttcggatacgccgaaatctagggttaattggagaagaggggatgagtttag  
 gtccgatggagattgccgggaaagtgatggcaccgcccggcgatgacgattactccggcgacg  
 gtgaatcggaggaagtcttgtttctggaaaccgcaggaaagttgtgaagtaatgccgtcggg  
 gattactccggcgacgggtgaataggaggaaatcttgtttttgaaacctcaagaaagttgtg  
 aagaaaatcgaagaaaaacgatttgcaaacggaatttgaatttgaattcaaattcagttaat  
 tctgcggttggtatcgattaagcgtgtgaagaagaaagatgaagaaattgctcaggttcaacc  
 gaagaagctgtttgaaggtgaaaaatcagtgaaagaaatcgttgaaacaaggtagaattggtg  
 caagccggtataattccgggtggtggtggtggtgatgcgaggaaagatcgttttcggagaat  
 aataaggggttagggagtgaatcagggctaagaagagatgggagataccaattgaagaagt  
 ggatgtgagtggttttgttatgttaccgaagatttcgacaatgaggtttgttgatgagagtc  
 cttagagattctggtgctgtttaaagagttgctgaattgaatggaaaaagatcttacttttgc  
 gatgaagatgaggaggagagagtgatggtggaggaagaaggtggttctgtttgtcaggtttt  
 gaattttgctgaagatgatgatgatgatgatgattatggtgaacaagggttaattgtggaaat  
 tggaaattgatttgtttttgtggggttgtgtggaactggctatgttctgcttgattcttttgc  
 attttggtgtgaaactaaagatgaggtgaaaagtttatgcttggttaaattggattggtttat  
 atgttttgaaataataacaacaagcatgtgtcttgccttaataattgtatattgttttgttg  
 ttttataatgatattggaatttaatttgtatacacaataataatagtagcattgagagagtt  
 tttcgttcagttattcattctgatttttagtggttatctcattctagaagattgtattttgttg

**SEQ ID NO 6: *Medicago trunculata* seedy1 protein**

MNNTNNNNILLHSTQVQVWNNAAFDGEDFAMNSSSDSIKENLNPSAFNIVPSSNKRTIDDEI  
 AEIESEIKRLTSKLELLRVEKAERKIASSEKRVSGIGTGRI VAAKFMEPKKNVTPKRNGVVKF  
 EETPKRNGVVS DTPKSRVNWRRGMSLGPM E IAGKVMAPPAMTITPATVNRKSCFWKPQESC  
 EVMPSGITPATVNRKSCFLKPQESCEENRRKTICKPNLNLNSNSVNSAVGSIKRVKKKDEE  
 IAQVQPKKLFEGEKSVKKS LKQGRIVASRYNSGGGGGDARKRSFSENNKGLGSEIRAKKRWE  
 IPIEEVDVSGFVMLPKISTMR FVDES PRDSGAVKRVAELNGKRSYFCDEDEEEERV MVEEEGG  
 SVCQVLNFAEDDDDDDDDYGEQG

**FIGURE 4 (continued)**

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**SEQ ID NO 7: *Saccharum* sp. encoding sequence (partial 5' end)**

Cgcaccgcgagtttcgaaaaaccaacctatcgcgcctcagatcacgcgaggacgcgagggga  
 agcaggaatccctccgctcccagccgcctcctccgctcacccatcgatcgatcggtccg  
 gtccagggggctctccggcggcggtggcgatggaggaggaccgctcatcccgctggtgcac  
 gtctggaacaacgcgccttcgaccacgcctcctcctccgcgtggcacgcccactcccctgt  
 gcccgcgagcgcacgtcgcgaggcggaggggggacaaggagaaccaccgccccgacccccgacc  
 ccgacgtcgaggcggagatcggccacatcgaggcggagatcctgcgcctgtntctcccgccn  
 caccaccttcgcacctccaagcagtcggagccgtccaagcgcggagaggtcgcgcccgcgcc  
 cgcggcgaaggcgaaagcggcggcgggcgggcgtgcggacgcgggggctcagcctgggcc  
 cgctcgacgtcgccgctgccggttaaccccaaccgctcaccaccgacaaccagcagcagcag  
 ccgctgcgcgcgaggggtctgaagccgatcaagcaggccacggcggcgggcgaaggcggt  
 aagacttggggccccttcgacatggtcggcgcgaaccctagggtcctccgccc

**SEQ ID NO 8: *Saccharum* sp. seedy1 protein (partial N-term)**

MEEDPLIPLVHVWNNAAFDFHASSSAWHAHSPVPASARREAEGDKENHRPDPDPDVEAEIGHI  
 EAEILRLXSRLLHLRTSKQSEPSKRGEVAPAPAAKAKAAAAARLRLTRGLSLGPLDVAAAGNP  
 NPLTTDNQQQQPRAAQGLKPIKQATAAAGKGVRLGPLRHGR

**SEQ ID NO 9: *Zea Mays* seedy1 encoding sequence (partial 3' end)**

ccacgcgtccggccggttcgagaggaggaaggccagcgttccaaggagcacgccgtccccgcc  
 agaccgtggccatccagcaatgccaggcaccactggatgccaggcaaggcaccgcagcaag  
 cagagccaaggcgcgaggagcgggagcataagccccagcaggttcaggaggcagtcacttcca  
 aggtctccgagacaagagcgggaaatgccaagcctacagaggcgacgaggggagggagcgaa  
 gcggtcaatcacaccagcaatgtagccacgacgaagaggccggcggggagctccaagggtcag  
 ggttgtcccgagccgctacagcatcccacctggctcctccctagcagctgtgacacaaggca  
 accgatgcaagcagtcctctcccaggatcggtactgagaccagagtaaattcactgagccg  
 ccgaacgacgagttgtctcctgaagaacttgccaagggtgcagagctgctccaaggattag  
 gaccatgccgccttctgatgagagcccgcgtgactcgggatgtgccaagcgtgttgctgatt  
 tggtcgggaagcgatccttcttactgctgcaggggacgatggcaatctcgttacgccttac  
 caggcacgggtggttgaaactgaatcaccgcaggcagcagcagaagaagcagaagcttgaga  
 agtttgtctttgatcaattccgaagtggcttgcatctgggcgtggcctctttttgcagtggtg  
 tgctactacatagtctactgttacattcatatcatatcacatttctattttttcccccttg  
 agacattgcttagtacttttgtgttgcccttggtgaaaagagagtgggaaggttcactctgctgat  
 nccttggt

**SEQ ID NO 10: *Zea Mays* seedy1 protein (partial C-term)**

TRPAVREEEGQRSKEHAVPARPWPSSNARHPLDARQGTAAASRAKARSGSISPSRFRRQSTSK  
 AAETRAGNAKPTEATRGGSEAVNHTSNVATTKRPAGSSKVRVVPSTRYSIPPGSSLAAVTQGN  
 RCKQSLPGSATETRVNLTEPPNDELSPEELAKVAELLPRIRTMPPSDESPRDSGCAKRVADL  
 VGKRSFFTAAGDDGNLVTPTYQARVVELESPEAAAAEEAE

**FIGURE 4 (continued)**

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**SEQ ID NO 11: *Arabidopsis thaliana* seedy1 coding sequence**

atgacatcaattgaggcaacagaaacgcttaacgctcctccaaagcttcagatctggaacaa  
cgctgccttcgacgatggagattctcaaatcacttcgccatcgaagcttcttcttggtctc  
acctcaacgaatcattcgattccgattgtagcaaggagaatcagtttccgatttcggtttcc  
tcttcgctccaatcctcagttcgcgacaccgaagctccgtcagcaaaatccaagaccgtgaa  
gaccaaattccgccgcagatcggagtaaaaagcgagatatcgatgcagagatcgaagaagtag  
agaaggagatcggacgattatcgacgaaattggagtcgctccgattagagaaggcggagcaa  
accgcaagaagcattgctatacgtggaagaatcgttccggcgaagttcatggaatcatctca  
gaaacaagtgaattcgacgattcgtgttttacaggatcgaaatcaagagccactcgtagag  
gcgttagtcttgaccagcggagatatcaattccgcgaagaatctgaaactgtgactcct  
cttcaatcagctcagaatcgacgcaagtcttgtttctttaagcttcctggaatcgaagaagg  
tcaagtgcgacacgaggttaaaggaagaacgagtttgagtcgtgagtcgagatctcgaaag  
cgaaaatgacggcagctcagaagcaagcagctacgacgggtggggtcaaagagagctgtgaag  
aaagaagaaggagttctcttaacaatccagcctaagaggctattcaaagaagatgaaaagaa  
tgtttctttaaggaaaccattgaaaccaggaagagttgtggctagtaggtacagtcaaattgg  
gtaaaacgcagactggagagaaagatgttaggaaaaggctcgttgctgaggatgaagagaaa  
gagaatcataagaggtcggagaagagaagagcttctgatgaaagtaacaagagtgaaggagg  
agtgaagaagagatgggagattccaagtgaagttgatctgtatagcagtggtgagaacgggtg  
acgagttctctatagtttaaggagctacctaagatcagaacgcttcgtcgtgtgggagggagc  
cctcgtgattcaggtgctgctaagagagttgcagaattacaagccaaggatcgtaacttcac  
tttttgccagcttctgaagtttgaagaatgaatgatccgcttatcaatttgagtaaaatcca  
caactcttggttggtt

**SEQ ID NO 12: *Arabidopsis thaliana* seedy1 protein**

MTSIEATETLNAPPKLQIWNNAAFDDGDSQITSAIEASSWSHLNESFSDSCSKENQFPISVS  
SSLQSSVSITEAPSAKSKTVKTKSAADRSKKRDI DAEIEEVEKEIGRLSTKLESLRLEKAEQ  
TARSIAIRGRIVPAKFMESSQKQVKFDDSCFTGSKSRATRGRVSLGPAEIFNSAKKSETVTP  
LQSAQNRRKSCFFKLPGIEEGQVTTRGKGRTSLSLSPRSRKAKMTAAQKQAATTVGSKRAVK  
KEEGVLLTIQPKRLFKEDEKNVSLRKPLKGRVVASRYSQMGKTQTGEKDVRKRSLPEDEEK  
ENHKRSEKRRASDESNKSEGRVKKRWEIPSEVDLYSSGENGDESPIVKELPKIRTLRRVGGG  
PRDSGAAKRVAELQAKDRNFTFCQLLKFEF

**FIGURE 4 (continued)**



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**SEQ ID NO 13: Sequence of the [PR00090 - CDS0689 - terminator] expression cassette**

cttctacatcggttaggtgtagcaacacgactttattattattattattattattattatt  
attttacaaaaatataaaatagatcagtcacctcaccacaagtagagcaagttggtgagttat  
tgtaaagttctacaaagctaattttaaagttattgcattaaacttatttcatattacaaacaa  
gagtgatcaatggaacaatgaaaacatatagcatactataattttggtttttattattgaaat  
tatataattcaaagagaataaatccacatagccgtaaagttctacatgtggtgcattaccaa  
aatatatatagcttacaaaacatgacaagcttagtttgaaaaattgcaatccttatcacatt  
gacacataaagtgagtgatgagtcataatatttttcttctgctacccatcatgtatatatg  
atagccacaaagttactttgatgatgatatacaagaacatttttaggtgcacctaacagaat  
atccaaataatatgactcacttagatcataatagagcatcaagtaaaactaacactctaaag  
caaccgatgggaaagcatctataaatagacaagcacaatgaaaatcctcatcatccttcacc  
acaattcaaataattatagttgaagcatagtagtaattttaaatacaactagggatatcacaagt  
ttgtacaaaaaagcaggctggtaccggtccggaattcccggtatcgctcgacccacgcgtc  
cgctgacgcgtgggttccactacatcaagacatctactacactcatcttttttgacttatt  
gggtgtaaatttttgaaacccagttgagaaaaatgagtggtgttacaatacccagaaggatt  
gaccagcagatgttcagatatggaacaatgcagcatttgataatggagattctgaagattt  
gtcttcgctgaaacggttcttgggtctcctctgaaaccccttccggttaggccatcagattcct  
ttgaatctgatttgtcaagtaaggaaaatcaaactcctttatttgagaattcatctgttaat  
ctctcatctccgttaccataaaagccacttaaccctaatggggctctggaaaattcaagact  
caagccgaacaagcccaattccaaacagagtccttgatgagatggcggctagaaagagcggaa  
agggaaatgatttccgtgatgagaagaaaatagacgaggaaattgaagaaattcagatggag  
attagtaggttgagttcaagattagaggctttgagaattgaaaaggctgagaaaactgttgc  
taagactgttgaaaagcagaggaagggttggtggcagcaaagtttatggagccaaaacaaagt  
ttattaagattgaagagcgtatatcaatgagtgcaagaacaaagggtggagcagagaagggt  
cttagtttaggaccatctgagatttttactggaacgcggcgagggttgagtatggggcc  
atcagatattctagcagggacaacaaaggcacggcaattgggaaagcaagagatgattatta  
ctcctattcagccaatacaaaacaggcgaaagtcgtgttttggaagcttcaagagattgaa  
gaagaggggaaaaagttcaagccttagtcctaaatcaagaaaaactgctgcaagaacaatggt  
tacaacaaggcagggcagttactacaattgcatcaaagaagaatttgaaaaaagatgatggac  
ttttgagttcagttcagccaaagaagttgtttaaagatctcgaaaagtcgtgctgctgcta  
aagaagccccagaggccggggagggttggtggctagtaggtataatcagagtacaattcagtc  
atcagtagtgagaaagaggtctttacctgaaaatgataaggatgagagtaagagaaatgata  
agaaacggtcgttatctgtagggaaaacgcgtgtgtctcaactgagagcaagaatttggt  
actgaaagtagggtgaaaaagagatgggaaattcctagtgagattgtagttcatggaaacac  
agagagtgaagaaatctccactaagcattattgtgaagcctgatttgcttccgcgaattagga  
ttgctcggtgtgtgaatgagactcttagggattctggacctgctaaaagaatgatagagttg  
ataggcaagaaatcgtttttcagtagtgatgaagataaggagccacctgtctgtcaagtttt  
aagttttgcagaggaagatgctgaagaggaataatgtgtataaaaggagctgctaactctt  
tcatgctctttcaattttcaatcctgccttttaattttgttcattcgtgccttttaattg  
aatggggaagcattcttttgccttctcaactgggtattctagcttctgaattacattgtatg  
gtacaatatgaataaggttttgccttccggcaggttgccaagttagtttttagcttaaaat  
agatgcggcagcggccgctctagagtatccctcgaggggcccagcttacgcgtacccagct

**FIGURE 4 (continued)**

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ttcttgtacaaagtggatgatcacaaagcccggtcttctagggataaacagggtaatta  
tatccctctagatcacaaagcccggtcttctacgatgattgagtaataatgtgtcacgc  
atcaccatgggtggcagtgatgagcaatgacctgaatgaacaattgaaatgaaaaga  
aaaaaagtactccatctgttccaaattaaaattcatttttaaccttttaatagggtttatacaa  
taattgatatatgttttctgtatatgtctaatttggttatcatccgggcggtcttctagggat  
aacagggtaattatatccctctagacaacacacaacaataagagaaaaaacaataatatt  
aatttgagaatgaacaaaaggaccatatcattcattaactcttctccatccatttccatttc  
acagttcgatagcgaaaaccgaataaaaaacacagtaaattacaagcacacaatggtaca  
agaaaaacagttttcccaatgccataatactcgaac

**SEQ ID NO 14: rice prolamin RP6 promoter sequence**

ccttctacatcggttaggtgtagcaacacgactttattattattattattattattat  
tattttacaaaaatataaaatagatcagtcacctcaccacaagtagagcaagttggtgagtta  
ttgtaaagttctacaaagctaattttaaaagttattgcattaacttatttcatattacaaaca  
agagtgtcaatggaacaatgaaaaccatatgacatactataattttggttttattattgaaa  
ttatataattcaaagagaataaatccacatagccgtaaagttctacatgtggtgcattacca  
aatatatatatagcttacaaaacatgacaagcttagtttgaaaaattgcaatccttatcacat  
tgacacataaagtgagtgatgagtcataatattatttttcttgctacctcatgtatatat  
gatagccacaaagttactttgatgatgatatcaaagaacatttttaggtgcacctaacagaa  
tatccaaataatatgactcacttagatcataatagagcatcaagtaaaactaacactctaaa  
gcaaccgatgggaaagcatctataaatagacaagcacaaatgaaaatcctcatccttcac  
cacaattcaaataattatagttgaagcatagtagtagaatccaacaaca

**SEQ ID NO 15: Motif 1 CORE SEQUENCE**

WXNAXXD

**SEQ ID NO 16: Motif 2 CORE SEQUENCE**

KENXXP

**SEQ ID NO 17: Motif 3 (coiled coil) CORE SEQUENCE**

EX<sub>1-6</sub>EXXRLXXXLXXLR

**SEQ ID NO 18: Motif 4 CORE SEQUENCE**

LPXIX<sub>1-10</sub>RDSGXXKRX<sub>1-6</sub>K

**FIGURE 4 (continued)**